

AMENDMENTS TO THE SPECIFICATION

The paragraph numbers correspond to patent application publication 2005/0171472 A1.

Please amend paragraph [0045] as follows:

[0045] The distal perfusion catheter region D is provided with two dilation units 2,3 which are disposed at a distance from each other in the longitudinal direction of the catheter. Usually the distance a is at least 1 cm, for example, approximately 2 cm. Both dilation units 2,3, which are designed as dilatable balloon elements, are penetrated in the center by perfusion catheter 1 and have in a dilated state usually a balloon diameter d of between 1.5 and 2.5 cm. In an expanded state, balloon thickness b is 0.5 to 1 cm usually. The dilation unit 3 disposed on the distal side is preferably located preferably 1 cm from the distal end of the perfusion catheter 1. Blood enters the inner hollow chamber enclosed by the perfusion catheter 1 through corresponding blood inlet openings 6 provided at the distal end of the perfusion catheter 1 and leaves the perfusion catheter again via the blood outlet openings 7, which are provided on the proximal side in relation to the dilation unit 2 disposed on the proximal side. At least the dilation unit disposed on the proximal side is disposed in a rotary moveable manner about the perfusion catheter.

Please amend paragraph [0048] (previously amended) as follows:

[0048] FIG. 3 shows a view in the distal direction of the dilation unit 2 disposed on the proximal side. In this view, the dilation unit 2 is inside the aorta A in an inflated state. The shape and size of the dilation unit 2 are selected in such a manner that in an inflated state the dilation unit 2 forms a fluid-tight occlusion with the wall of aorta A. Down the center through dilation unit 2 (as well as through dilation unit 3) projects the perfusion catheter 1 whose hollow channel serves to maintain the blood flow. In addition, dilation unit 2 is provided with a multiplicity of passages which act as fluid-tight passage openings for auxiliary and working catheters. Thus, the circumferential edge of

the dilation unit 2 surrounds in a fluid-tight manner two coronary perfusion catheters C introduced in the longitudinal direction of the aortic wall. When the dilation unit is in an inflated state, part of the passage for coronary perfusion catheters is bound sickle-like by a circumferential edge of the dilation unit and a remaining part of the passage is bound by the aortic wall. The coronary perfusion catheters C ensure blood supply to the left and to the right coronary arteries during cardiac valve extraction. For this purpose, the coronary perfusion catheters C are provided at their distal end region with corresponding dilatable cuffs C' (FIG. 5) with which the coronary perfusion catheters can be placed and fixed inside the coronary arteries. The coronary arteries can be supplied, even during cardiac valve extraction, locally with blood from the abdominal region via abdominal catheters connected to the aforementioned coronary perfusion catheters C, if need be, using an interconnected external pump, in order to impede natural heart activity as little as possible.

Please amend paragraph [0053] as follows:

[0053] FIG. 4 shows a coronary section of the perfusion catheter 1 in the region of the working volume 5 enclosed by the dilation units 2,3 and the aortic wall A. The hollow channel of the perfusion catheter 1 projects through both the dilation unit 2 disposed on the proximal side and the dilation unit 3 disposed on the distal side. The aortic valve AK is located inside the working volume 5 and is separated in a fluid-tight manner from the remaining vascular system. Shown projecting through the dilation unit 2 are a number of auxiliary catheters, respectively supply lines and drainages, reaching through the dilation unit 2 into the working volume 5. Thus, two coronary perfusion catheters C pass through the corresponding passages through the dilation element 2 laterally into the coronary arteries to supply them separately with blood. At least three further passages are provided in the dilation unit disposed on the proximal side, one serves for introducing an ablation instrument, another for introducing an observation and/or rinsing unit, and a third one for introducing a drainage.

Please amend paragraph [0055] (previously amended) as follows:

[0055] The individual passages projecting through the dilation unit 2 are each equipped with a fluid-tight sluice mechanism 15, which in a simplest case is based on the elasticity of the balloon material of which the dilation unit is made. Either the elastic, inflatable material snuggles, practically following the contours, to an outer circumferential edge of the inflated dilation unit 2 and of the aortic wall, such as is the case for example in Fig. 3 with reference to the passages for the coronary catheter C, or the passages are located in the middle of the dilation unit and are completely surrounded by the dilation unit and form tube-like passages in which the channel walls snuggle to each other in a fluid-tight manner in an inflated state and are pressed apart in a fluid-tight manner when a catheter is introduced. Fig. 3 shows a passage pressed apart in a fluid tight matter for one coronary catheter C and other passages I, O, A1, A2 and shows a passage that is sealed fluid-tight without the provision of a second coronary catheter C. Thus, the sluice mechanism seals passages fluid-tight without the provision of an auxiliary catheter when the dilation unit disposed on the proximal side is in an inflated state.